

WHAT IS CLAIMED IS:

1. A document circulation method of circulating a document having a plurality of data blocks, said circulation method comprising the steps of:

encrypting a certain data block of a plurality of data blocks in a document by using an encrypting key corresponding to a certain worker;

encrypting another data block of said plurality of data blocks in said document by using another encrypting key corresponding to another worker; and

circulating said document having said certain data block and said another data block over a network.

2. A document circulation method according to claim 1, further comprising the steps of:

receiving said document having said certain data block and said another data block by said certain worker and said another worker from said network;

decrypting said document by using a decrypting key corresponding to said certain worker; and

decrypting said document by using another decrypting key corresponding to said another worker.

3. A document circulation method according to claim 2, further comprising the step of setting a display condition such that a data block which cannot be decrypted when the encrypted portion of said document is decrypted by using said decrypting key corresponding to said certain worker is not displayed.

4. A document circulation method according to

claim 3, further comprising the step of displaying a column of a data block which cannot be decrypted in the form of a blank when the encrypted portion of said document is decrypted by using said another decrypting key corresponding to said another worker.

5. A document circulation method according to claim 2, further comprising a step of determining not to display data in response to non-existence of data to be decrypted.

6. A document circulation method according to claim 4, further comprising the step of displaying said document on each terminal connected to said network in order for said certain worker and said another worker to check and process the contents of said certain data block and said another data block.

7. A document circulation system for circulating a document having a plurality of data blocks, said document circulation system comprising:

an encrypting unit for encrypting a certain data block of a plurality of data blocks of a document by using an encrypting key corresponding to a certain worker and encrypting another data block of said plurality of data blocks of said document by using another encrypting key corresponding to another worker; and

a first apparatus having a transmitting unit for circulating said document having said certain data block and said another data block through a network.

8. A document circulation system according to

claim 7, further comprising second and third apparatus having receiving units for receiving said document having said certain data block and said another data block by said certain worker and said another worker from said network, and wherein said second apparatus decrypts said document by using a decrypting key corresponding to said certain worker and said third apparatus decrypts said document by using another decrypting key corresponding to said another worker.

9. A document circulation system as claimed in claim 7, wherein said second apparatus includes a display control unit for setting a display condition such that a data block which cannot be decrypted when the encrypted portion of said document is decrypted by using said decrypting key corresponding to said certain worker is not displayed.

10. A document circulation system as claimed in claim 9, wherein said third apparatus includes another display control unit for displaying a column of a data block which cannot be decrypted when said document is decrypted by using said another decrypting key corresponding to said another worker in the form of a blank.

11. A document circulation system as claimed in claim 10, wherein said display control unit displays said document in order for said certain worker to check and process the contents of said certain data block and said another display control unit displays said document in

order for said another worker to check and process the contents of said another data block.

12. A document circulation system as claimed in claim 7, wherein said display control unit displays a blank data block in response to non-existence of data to be decrypted.

13. A document circulation apparatus for circulating a document having a plurality of data blocks, said document circulation apparatus comprising:

an encrypting unit for encrypting a certain data block of a plurality of data blocks of a document by using an encrypting key corresponding to a certain worker and encrypting another data block of said plurality of data blocks of said document by using another encrypting key corresponding to another worker;

a transmitting and receiving unit for circulating said document having said certain data block and said another data block over a network; and

a display control unit for decrypting an encrypted portion of a document received from said network by using its own decrypting key and setting a display condition such that a data block which cannot be decrypted is not displayed.

14. A document circulation apparatus as claimed in claim 13, wherein a column of a data block which cannot be decrypted when said document is decrypted by using said decrypting key is displayed in the form of a blank.

15. A document circulation apparatus according to

claim 14, further comprising a data block processing unit for checking and processing the contents of a decrypted data block displayed by said display control unit.

16. A document circulation apparatus according to claim 13, wherein said display control unit displays a blank in response to non-existence of data to be decrypted.

17. A storage medium for recording a document circulation program for circulating a document having a plurality of data blocks in such a manner that said document circulation program can be read by a computer, said storage medium comprising:

a code for the step of encrypting a certain data block of a plurality of data blocks of a document by using an encrypting key corresponding to a certain worker and encrypting another data block of said plurality of data blocks of said document by using an encrypting key corresponding to another worker; and

a code for the step of circulating said document having said certain data block and said another data block over a network.

18. A storage medium for recording a document circulation program for circulating a document having a plurality of data blocks in such a manner that said document circulation program can be read by a computer, said storage medium comprising:

a code for the step of decrypting an encrypted portion of said document received from said network by

using its own decrypting key and displaying said document except a data block which cannot be decrypted.

19. A electronic document processing method for circulating an electronic document having a plurality of data groups over a plurality of workers, said electronic document processing method comprising the steps of:

encrypting a certain data group of a plurality of data in an electronic document by using an encrypting key corresponding to a certain worker;

transmitting an electronic document having said encrypted data group over a network;

decrypting said encrypted data group of said electronic document by using a decrypting key corresponding to said worker and displaying whether or not said encrypted data group is decrypted correctly or displaying said document in response to the existence of said data group.

20. An electronic document processing method according to claim 19, further comprising the step of encrypting a certain document data by using an encrypting key of a worker who should refer to said data in order to encrypt said certain document data.

21. An electronic document processing method according to claim 19, further comprising the step of controlling a display state of a document data by changing a format display attribute in response to whether or not said encrypted document data is decrypted correctly or the existence of said document data.

22. A electronic document processing system for circulating an electronic document having a plurality of data through a plurality of workers, said electronic document processing system comprising:

a first apparatus including a data encryption processing unit for encrypting a certain data of a plurality of data in an electronic document by using an encrypting key corresponding to a certain worker and a data input and output processing unit for transmitting and outputting an electronic document having said encrypted data over a network; and

a second apparatus including a data decryption processing unit for decrypting said encrypted data in said electronic document by using a decrypting key corresponding to said worker and a process defining and executing processing unit for displaying said data and effecting a processing in response to whether or not said encrypted specific form data is decrypted correctly or the existence of said form data.

23. A medium in which a program for enabling a computer to function as an electronic document processing system for circulating an electronic document having a plurality of data through a plurality of workers may be recorded in such a manner that said medium may be read and executed by a computer, said medium records programs for functioning a computer as:

a data encryption processing unit for encrypting specific data of a plurality of data in an

electronic document by using an encrypting key corresponding to a specific worker;

a data input and output processing unit for transmitting and receiving electronic data having said encrypted specific data over a network;

data decryption processing unit for decrypting said encrypted specific data in said electronic data by a decrypting key corresponding to said specific worker; and

a process defining and executing processing unit for displaying data and effecting a processing in response to whether or not said encrypted data is decoded correctly or the existence of said data.